UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,605	02/14/2006	Peter Legg	CE10327EP	4540

22917 7590 06/15/2007

MOTOROLA, INC.
1303 EAST ALGONQUIN ROAD
IL01/3RD
SCHAUMBURG, IL 60196

EXAMINER	
SAFAIPOUR, BOBBAK	
ART UNIT	PAPER NUMBER
2618	

NOTIFICATION DATE	DELIVERY MODE
06/15/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.Schaumburg@motorola.com
APT099@motorola.com

Office Action Summary	Application No.	Applicant(s)	
	10/568,605	LEGG ET AL.	
	Examiner	Art Unit	
	Bobbak Safaipour	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 March 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4,5,7-11,13,16,17 and 19-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,5,7,9-11,13,16,17,19 and 21* is/are rejected.

7)☒ Claim(s) *8 and 20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 February 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Action is in response to Applicant's response filed on 3/29/2007. Claims 2-3, 6, 12, 14-15, 18, and 22-25 are cancelled. **Claims 1, 4, 5, 7-11, 13, 16-17, and 19-21** are still pending in the present application. **This action is made FINAL.**

Response to Arguments

Applicant's arguments with respect to **claims 1 and 13** have been fully considered but they are not persuasive.

In the present application, Applicant essentially argues that Toskala et al (US 6,374,118, hereinafter "Toskala") describes periodic target calculations, but only for the one selected service. Further, Toskala does not describe performing the periodic target calculation for all of the services, but only for the one selected service. It is only when the one select service drops out that Toskala then considers the target for any of the other services, then only for the next most stringent service. Therefore, Toskala continually re-targets power control only considering the presently operating service having the most stringent QoS, which teaches away from applicants' invention.

Examiner respectfully disagrees. Applicants' claim language does not specifically disclose performing the periodic target calculation for *all* of the selected services. Toskala discloses that a service is placed in a physical channel. Afterwards, it is checked whether there are other services to be placed in the same physical channel. Therefore, there could be multiple services being places in the same physical channel. (col. 6, lines 28-32) Furthermore, figure 4a also illustrates this basic method of performing physical channel power in a radio system. When

the loops finishes (blocks 452 to 456 of figure 4a), it is possible to have multiple services in the same physical channel. Therefore, Toskala is not limited to performing periodic target calculations for the one selected service. The claim language specifically discloses "periodically calculating, for each of the services, a separate change to the current inner power loop performance target." The recited claim language is given the broadest reasonable interpretation; therefore, as indicated above, "periodically calculating, for each of the services" as recited in claims 1 and 13 does not specifically disclose re-targeting power control considering *any* service, without regard to whether that service has the most stringent QoS, and specifically for *any* service that exhibits the largest change in target.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 4-5, 7, 9-11, 13, 16-17, 19, and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over **Chou et al (US Patent Application Publication #2004/0205752 A1)** in view of **Toskala et al (United States Patent #6,374,118).**

Consider **claim 1**, Chou et al disclose an outer loop power control method performed in a radio communication system, the method comprising: determining that a plurality of different services are being communicated (paragraphs 25 and 36; read as principal functions of the RNC is to process user voice and data traffic and conduct power control); performing a delay tolerance comparison with respect to the different services (paragraph 7; read as the method assigns the processor resource of each QoS class according to the ratio of its delay tolerance for each class of traffic); and selecting the service having the least delay tolerant service (paragraphs 20-31).

Chou et al fail to disclose providing an inner loop power control performance target of the selected service; periodically calculating, for each of the services, a separate change to the current inner power loop performance target; wherein performing a comparison with respect to the different services comprises comparing the resulting respective current inner power loop performance target changes; identifying the largest of the resulting respective current inner power loop performance target changes; and changing the current inner power loop performance target by the amount of the identified largest resulting respective current inner power loop performance target changes to arrive at the inner loop power control performance target being provided.

In related art, Toskala et al discloses providing an inner loop power control performance target of the selected service (col. 2, lines 19-40; col. 6, line 26 to col. 7, line 13; figures 2a-2b);

periodically calculating, for each of the services, a separate change to the current inner power loop performance target (Toskala et al: col. 6, lines 35-41, figures 4a-4b); wherein performing a comparison with respect to the different services comprises comparing the resulting respective current inner power loop performance target changes (Toskala et al: col. 6, lines 45-50, figures 4a-4b); identifying the largest of the resulting respective current inner power loop performance target changes (Toskala et al: col. 7, lines 29-35, figures 4a-4b); and changing the current inner power loop performance target by the amount of the identified largest resulting respective current inner power loop performance target changes to arrive at the inner loop power control performance target being provided (Toskala et al: col. 7, lines 35-42, figures 4a-4b).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the inner loop power control performance of Toskala et al into the delay tolerance comparison of Chou et al to decrease interference and thus increases the amount of radio capacity available in the system.

Consider **claim 13**, Chou et al disclose an apparatus for performing an outer loop power control method in a radio communications system, comprising: means for determining that a plurality of different services are being communicated (paragraphs 25 and 36; read as principal functions of the RNC is to process user voice and data traffic and conduct power control); means for performing a delay tolerance comparison with respect to the different services (paragraph 7; read as the method assigns the processor resource of each QoS class according to the ratio of its delay tolerance for each class of traffic); and means for selecting the service having the least delay tolerant service (paragraphs 5-7, 20-31).

Chou et al fail to disclose means for providing an inner loop power control performance target of the selected service; periodically calculating, for each of the services, a separate change to the current inner power loop performance target; wherein performing a comparison with respect to the different services comprises comparing the resulting respective current inner power loop performance target changes; identifying the largest of the resulting respective current inner power loop performance target changes; and changing the current inner power loop performance target by the amount of the identified largest resulting respective current inner power loop performance target changes to arrive at the inner loop power control performance target being provided.

In related art, Toskala et al discloses providing an inner loop power control performance target of the selected service (col. 2, lines 19-40; col. 6, line 26 to col. 7, line 13; figures 2a-2b); periodically calculating, for each of the services, a separate change to the current inner power loop performance target (Toskala et al: col. 6, lines 35-41, figures 4a-4b); wherein performing a comparison with respect to the different services comprises comparing the resulting respective current inner power loop performance target changes (Toskala et al: col. 6, lines 45-50, figures 4a-4b); identifying the largest of the resulting respective current inner power loop performance target changes (Toskala et al: col. 7, lines 29-35, figures 4a-4b); and changing the current inner power loop performance target by the amount of the identified largest resulting respective current inner power loop performance target changes to arrive at the inner loop power control performance target being provided (Toskala et al: col. 7, lines 35-42, figures 4a-4b).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the inner loop power control performance of Toskala et al into the delay

tolerance comparison of Chou et al to decrease interference and thus increases the amount of radio capacity available in the system.

Consider **claims 4 and 16**, and **as applied to claims 1 and 13 above, respectively,** Chou et al, as modified by Toskala et al, disclose a method and apparatus wherein selecting one of the services is also performed based upon a comparison of one or more quality of service characteristics or requirements of the services. (Chou et al: paragraph 25)

Consider **claims 5 and 17**, and **as applied to claims 1 and 13 above, respectively,** Chou et al, as modified by Toskala et al, disclose a method and apparatus wherein selecting one of the services comprises receiving an input from a user or operator specifying the service. (Chou et al: paragraph 8)

Consider **claims 6 and 18**, and **as applied to claims 1 and 13 above, respectively,** Chou et al, as modified by Toskala et al, disclose a method and apparatus wherein periodically calculating, for each of the services, a separate change to the current inner power loop performance target (Toskala et al: col. 6, lines 35-41, figures 4a-4b); wherein performing a comparison with respect to the different services comprises comparing the resulting respective current inner power loop performance target changes (Toskala et al: col. 6, lines 45-50, figures 4a-4b); identifying the largest of the resulting respective current inner power loop performance target changes (Toskala et al: col. 7, lines 29-35, figures 4a-4b); and changing the current inner power loop performance target by the amount of the identified largest resulting respective

current inner power loop performance target changes to arrive at the inner loop power control performance target being provided (Toskala et al: col. 7, lines 35-42, figures 4a-4b).

Consider **claims 7 and 19**, and **as applied to claims 1 and 13 above, respectively,** Chou et al, as modified by Toskala et al, disclose a method and apparatus wherein periodically calculating, for each of the services, a separate new inner loop power control performance target value (Toskala et al: col. 6, lines 35-41, figures 4a-4b); wherein performing a comparison with respect to the different services comprises comparing the resulting respective inner loop power control performance target values (Toskala et al: col. 6, lines 45-50, figures 4a-4b); identifying the highest inner loop power control performance target value from among the resulting respective inner loop power control performance target values (Toskala et al: col. 7, lines 29-35, figures 4a-4b); and using the identified highest inner loop power control performance target value as the inner loop power control performance target being provided (Toskala et al: col. 7, lines 35-42, figures 4a-4b).

Consider **claims 9 and 21**, and **as applied to claims 7 and 13 above, respectively,** Chou et al, as modified by Toskala et al, disclose a method and apparatus wherein the inner loop power control performance target also includes a signal to interference ratio, SIR, target. (Toskala et al: figures 4a-4b, col. 6, lines 8-12)

Consider **claim 10**, and **as applied to claim 1 above**, Chou et al, as modified by Toskala et al, disclose a method wherein radio communication system is a cellular radio communications system. (Toskala et al: col. 3, lines 1-18)

Consider **claim 11**, and **as applied to claim 1 above**, Chou et al, as modified by Toskala et al, disclose a method wherein the cellular radio communications system is a UMTS system. (Toskala et al: col. 3, lines 1-18)

Allowable Subject Matter

Claims 8 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Consider **claim 8**, and **as applied to claim 7 above**, the best prior art of record found during the examination of the present application, **Chou et al (US Patent Application Publication #2004/0205752 A1)** in view of **Toskala et al (United States Patent #6,374,118),** fail to specifically disclose, teach, or suggest wherein target differences for any of the lesser services exceed a threshold and a changing the data rate of lesser services to increase their quality.

Consider **claim 20**, and **as applied to claim 19 above**, the best prior art of record found during the examination of the present application, **Chou et al (US Patent Application**

Publication #2004/0205752 A1) in view of **Toskala et al (United States Patent #6,374,118),** fail to specifically disclose, teach, or suggest wherein target differences for any of the lesser services exceed a threshold and a changing the data rate of lesser services to increase their quality.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to**:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Bobbak Safaipour whose telephone number is (571) 270-1092. The Examiner can normally be reached on Monday-Friday from 9:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Bobbak Safaipour

B.S./bs

June 4, 2007

EDAN ORGAD
PRIMARY PATENT EXAMINER

6/6/07